

Name \_\_\_\_\_

## Ch 7 Study Guide AE Chemistry

Formulas of Compounds:

### ***Ionic Compounds***

*Use your ion sheet and the criss-cross method to give the formulas of the following ionic compounds.*

Potassium iodide

Barium chloride

Lead(II) nitrate

Copper(II) carbonate

Magnesium phosphate

Iron (II) sulfide

Sodium acetate

Ammonium hydroxide

*Name the following ionic compounds*

KClO<sub>2</sub>

Na<sub>2</sub>SO<sub>4</sub>

Li<sub>2</sub>CO<sub>3</sub>

CuCl

Pb(OH)<sub>2</sub>

Al<sub>2</sub>O<sub>3</sub>

FeF<sub>2</sub>

Mg(NO<sub>3</sub>)<sub>2</sub>

### ***Covalent Compounds***

*Write the formulas for the following covalent compounds.*

Nitrogen dioxide

Sulfur trioxide

Diphosphorous trioxide

Silicon hexachloride

Carbon disulfide

trinitrogen pentafluoride

*Write the name for the following covalent compounds*

N<sub>3</sub>Cl<sub>5</sub>

PO<sub>3</sub>

CCl<sub>4</sub>

N<sub>5</sub>O<sub>10</sub>

### ***Acids***

*Write the formulas for the following acids*

Hydrobromic acid

Sulfurous acid

Nitric acid

Acetic Acid

Hydrochloric acid

Nitrous acid

*Write the name of the following acids*

HF

H<sub>2</sub>SO<sub>4</sub>

HClO

H<sub>2</sub>CO<sub>3</sub>

H<sub>2</sub>S



### ***Percent Composition***

Calculate the percent of **Hydrogen** in  $\text{H}_2\text{SO}_4$ .

Calculate the percentage of water in  $\text{BaCl}_2 \cdot 9\text{H}_2\text{O}$ .

How many grams of copper can be extracted from 25.0 g of,  $\text{CuCl}_2$ ?

What is the law of definite composition?

If 3.14 grams of a hydrate of  $\text{LiF}$  are heated and 2.10 g of anhydrous salt remain, what is the percentage of water in the hydrate?

2.1 mol  $\text{OF}_2$  = \_\_\_\_?\_\_\_\_ molecules  $\text{OF}_2$

$2.5 \times 10^{24}$  formula units  $\text{Fe}_2\text{O}_3$  = \_\_\_\_?\_\_\_\_ mol  $\text{Fe}_2\text{O}_3$

0.56 mol  $\text{CO}_2$  = \_\_\_\_?\_\_\_\_ g  $\text{CO}_2$

65 g  $\text{CaO}$  = \_\_\_\_?\_\_\_\_ mol  $\text{CaO}$